IN THE **UNITED STATES** PATENT AND TRADEMARK **OFFICE**

Application Number	09/749,637				
Filing Date	28 December 2000				
First Named Inventor	Baldomero M. OLIVERA				
Group Art Unit	1646				
Examiner Name	unassigned				
Attorney Docket Number	2314-227				

Itle of the Invention: O-SUPERFAMILY CONOTOXIN PEPTIDES

STATEMENT PURSUANT TO 37 CFR 1.821(f)

Assistant Commissioner for Patents Washington, D.C. 20231

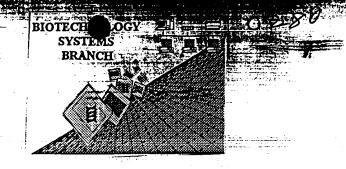
Dear Sir:

In the matter of the above-identified application, Applicants submit herewith a computer disk containing the sequences of the substitute Sequence Listing which is filed concurrently herewith by Preliminary Amendment.

It is hereby certified that the content of the paper and computer copies of said substitute Sequence Listing are identical and include no new matter.

RESPECTFULLY SUBMITTED,									
NAME AND REG. NUMBER	Jeffrey L. Ihnen, Reg. No. 28,957								
SIGNATURE	Jeffy 16	L	I	DATE	13 .	AUGUST 2001			
Address	ROTHWELL, FIGG, ERNST & MANBECK, pc Suite 701-East, 555 13th Street, N.W.								
City	Washington	State	D.C.	Z	ip Code	20004			
Country	U.S.A.	Telephone	202-783-604	$0 \mid F$	Sax .	202-783-6031			

RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:



Application Serial Number: 09/749, 637

Source: 01PE RECEIVED

AUG 2 n 2001

01-16-01 Date Processed by STIC:

TECH CENTER 1800 2900

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS. PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITU A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTFONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 793-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin30help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2Kcompliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money. Control of the Contro · 1980年1月1日 - 1886年1月1日 - 1886年1月1日 - 1887年1月1日 - 188

Checker Version 3.0 can be down loaded from the USPTO website at the following address http://www.uspto.gov/web/offices/pac/checker

Page 1 of 8

Note: The initial sequence listing was errored and

edited and is included. The edited sequence

listing was found to still be errored as OIPE

is noted on p.5.

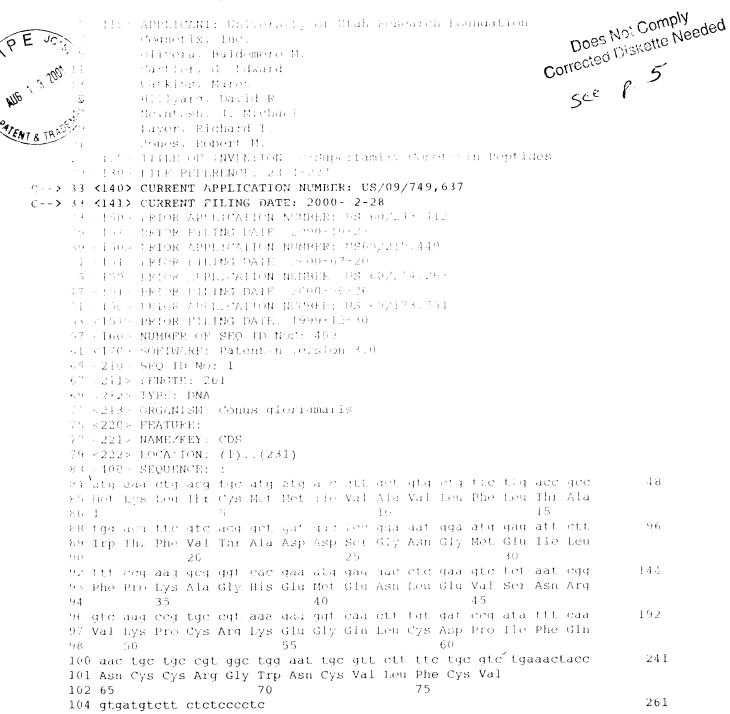
RAW SEQUENCE LISTING

PATENT APPL CATION: US/09/749,637

- DATE: 01/23/2001 - :1MF: 12:19:41

Input Set - A:\Cpg.pto

output Set. N:\CRF3\01232001\I749637.raw



DATE: 01/23/2001

FIME: 12:19:41

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Imput Set : A:\Cpg.pto
                     ratput Set: N:\CRF3\01232001\1749637.raw
     10 % <210 > SEQ 1D NO: 2
     100 × 211 × 1ENG1H: "
     111 <212> TYPE: PRI
     113 - 213 - OPGANISM: Comus gloriamaris
     111 - 400 - Shouth Th: 2
     The Mot Ess Log Inc 25s Mot Mct The Val Ala Val Lou Phe Lou Thr Ala
                                             j ()
     120 1
     i. - Irp throne Calothi Ala Asp Asp Ser Gly Ash Gly Met Clu Fle Leu
                                                             3 ()
     40% pho pho his lig divinis din Mot Glu Ash Leu Glu Val Ser Ash Ard
     1...
                                    40
     120 Val 11s Fee 1 s Ara Lys din Gly Gli Leu Cys Asp Pro ille Pho Gli
                            ņ.S
                                         60
     132 50
     10 Asa Cas Cys Arg Gar Arp Ash Cys Val Lou Phe Cys Val
                            7.6
     13 ( 2210 ) BLO HO NO: 3
     141 -211: LENGIH: 29
     143 Balley YELL SKI
     143 - zis okaza SM: Cosus quoriamaris
     149 LOS FPATURES
     151 221 NAMES WINE CLIE
     187 BUZE LOCATE B. (1)..(25)
     [73] 223 Other ThioMMALLON: You at residues 3 and 13 may be pro-or hydroxy-
Pro: Xaa - resida
     15.6 by the different gamma-carboxy-different Raa at resisting 22 may be trouble to or broth-lip.
     161 400% SIMUENCE: 3
W--> 163 Val Tys Xaa Cys Arg Lys Xaa Cly Gln Leu Cys Asp Xaa Ile Phe Gln
     164 1 5
W--> 166 Asn Cys Cys Arg Gly Xaa Asn Cys Val Leu Phe Cys Val
     167
     169 .210> SLO ID No: 4
     17% PPILS LENGTH: 29
     173 CM122 TYPE: PKI
     175 - .13> OPGANISM: Conus gloriamaris
     174 | 110: FEATUFE:
     18. - 2215 NAME/KEY: SIIL
     18 / - 122> TOCATION: (!)..(29)
     185 F223: OTHER INFORMATION: Xad at residues 3 and 13 may be pro or hydroxy-
Pio: Xia at. 10sidu
           e j may bodle or gamma-carboxy-Glu; Xaa at residue 15 may be Tyr
     186
              , 125-1-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-surpho-Tyr or O-phospu
     187
              o-Tyr; Xaa at residue 22 may be Trp or bromo-Trp
    192 <400> SEQUENCE: 4
W--> 194 Val Lys Xáa Cys Arg Lys Xáa Gly Gln Leu Cys Asp Xáa Ile Xáa Gln
                Γ',
                                            1.0
                                                                 15
    195 [
W--> 197 Asn Cys Cys Arg Gly Xaa Asn Cys Val Leu Phe Cys Val
     200 <210> SEQ ID NO: 5
     202 <211> LENGTH. 29
     204 <212> TYPE: PRT
```

RAW SEQUENCE LISTING

TATENT APPLICATION: US/09/749,637

-DATE: 01/23/2001

- []ML: 12 19:41

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Input Set : A:\Cpg.pto
                     Dut put Sets: N:\CRF3\01232001\1749637.raw
    200 213 ORGANISM: Comms dioriamaris
    Lin -220 IEAIURE:
     212 - 2215 NAME KEY: SITE
     214 - 222 LOCATION: (1)..(29)
     2.6 .223. OTHER INFORMATION: Xia at residues 3 and 13 may be pro or hydrox.
zroj Kaa at residu
           e ? hay be Gir or qamma-carboxy-din; Xaa at residue 22 may be tip
     . 17
              or bromostip: Xaa at regidue 27 mag be tyr. 12 staty: monostodo
              -for disjoid-lyr, Ossulphostyr or Osphosphostyr
     PLB - 400 / SEQUENCE OF
W--> 225 Val Lys Xáa Cys Arg Lys Xáa Gly Gla Leu Cys Asp Xáa Ile Phe Gln
     1...6
W--> 228 Asn Cys Cys Arg Gly Xaa Asn Cys Val Leu Xáa Cys Val
     3.10
                    20
     501 2101 SEQ 4D NO: 6
     234 - 2115 LENGTH: 342
     335 SZ122 TYPE INA
     737 K213% CROANTSM. Conus omaria
     144 - 2202 PEAT PET
     San Salar NAME, KEY, COS.
     117 × 222 | [OCATION (116)..(235)
     1.5 k400% SEGUENCE: 6

    ) quageriggra egectiquade faccigni or quarti roomg latoganatou totatoutog.

     2/2 i statetyte estecators, tiratteatt esetyeriga etafaatada catteaadte.
      Id foretifoit julgiford acaga from ato add lig top cot aca gad got.
                                     Ser Ilo Aro Met Cys Ard Ard Gla Ala
                                      ì
    1776
     .58 has lit tg: gail beg ath it! can add ign ign cat ago ing iit tgc
     279 Glm Lou Cys Asp Pro Ile Phe Glm Ash Cys Cys His Gly Lea Che Cys
                                              20
                            1.5
    the git fig the type gite taaaactaes giga gielf electrocer clagfaglar
    Be3 Val Lou Val Cys Val
                                                                                335
    Emb taggoggong choragagga todaagetta ogtabgogtg batgogabgt batagotbit
     2008 chalagique acchapathe aatteactge consegiith beaacglogt qactgygaaa
                                                                                305
                                                                               155
    PTH accordanged functionally abloquetin oughnounce excittinged andiggodta
    272 alagegaaga qqoorgcaed mateqreent eddaacagtt goq sagoolg aatggogaat
                                                                               515
                                                                                54.2
    PTS aggracquiges englagedge geathet
    277 \times 210 \times \text{ SEQ} \text{ (D) NO: } 7
    200 <211 LENGTH: 30
    281 JE12: TYPE: PRT
    283 <213 > ORGANISM Conus omaria
    287 <400> SEQUENCE 7
    289 Ser lle Arg Met. Cys Arg Arg Glu Ala Gln Leu Cys Asp Pro Ile Phe
                5
                                             1.0
    290 - 1
    193 Gln Asn Cys Cys His Gly Lou Phe Cys Val Leu Val Cys Val
    294
            20
    297 ×210> SEQ ID NO: 8
```

RAW SEQUENCE LISTING

FAILNE APPLICATION: US/09/749,637

299 (211> LENGTH: 27 301 (212> TYPE: PRT

RAW SEQUENCE LISTING

PARLNI APPLICATION: US/09/749,637

- PATE: 03/23/2001 - TIME: 12:19:11

amput Set : A:\Cpg.pto

ratput Set: N:\CRF3\01232001\I749637.raw

```
lak jiks osdANISM: Comus omaria
    Section 220 State ATURE:
     SOURCE STIE
     +11+222+100 Allow: (1)..(27)
     513 L255 FIREK INFORMATION: Xaa at residue 5 as Gru on damma-varbox; -G10: Xaa
at residue 11 m.
    and be broom hydroxy-bro-
     318 - 1 R = F. OUFN.T: 8
W--> 320 Met Cys Arg Arg Xaa Ala Gln Leu Cys Asp Xaa Ile Phe Gln Asn Cys
                                       1.0
     523 Cys Hi Gir fou Pho Cys Val Lea Val Cys Va.
     124
     126 210 8 Sty .D NO: 9
     325 ×2±1 × 11.NG.H: 34€
     (50) \sim 24.2 \times (1YPF) \cdot (DNA)
     3-2 213 - ORGANISM Comus telefic
     136 -220 - FEAINTEE
     338 - 221 - NAME/FLY COS
     -40 + 222 \times 1 + \text{CAULAN} = (25) \dots (315)
     March 4000 Shou hetch
     145 equestanch adaloated had altquata etquard tall altquate afterant.
                                  . Met Lys Lew Hir Stin Met Net Ile Val
     : 1 -,
     says leght gots lengthing the sack got the same the process and gat his the
     So Ala wal her she had the Ata dip the Pho Val the ala Asp asso Set
                                             20
                         6.1
                                                                              147
     153 aga mat gga ata gag ant all the deg and gen ggt duc gan hig gag
     454 App App Ho to . Glu Ser Lea Phe Pro Lys Ala Gly Hi Glu Met Glo
     25%
                        30
                                            3.5
                                                                              195
     35" aan etn gal gan tot waa cac agg cac cag gag aga cog gac 4cc 4gc 4gc
     OB was for the Asp Sor Lys His Arg His Glo Clu Arg Pro Asp The dig
                                        50
                4 5
     361 gad aaa gaa qaq atg dig dta dag aga dag gtd aag dog tgi dgi aaa
                                                                              213
     362 Asp Lys Glu Giu Met Leu Leu Gln Arg Gln Val Lys Pro Cys Arg Lys
                                    6.5
     365 and cat car etc. tut gat etg att tit can had tyc the egt ugc tyd
                                                                              291
     466 Glu His Gln Lod Cys Asp Lon Tio Phe Gln Ash Cys Cys Arg Gly Trp
     ACT 75
                                         8.5
     369 hat the gir are only for the act that agetae organization etactoreal.
                                                                              3.1
     COG fvr Cys Vai Val Len Ser Gys Thr
     371 90
                                                                              346
     573 c
     376 <210> SEQ 1D MO: LU
     378 <211> LENGTH: 97
     380 <212> TYPE PRI
     382 <213 > ORGANISM: Conus textile
    38€ <400> SEQUENCE: 10
    388 Met Lys Leu Thr Cys Met Met Ile Val Ala Val Leu Phe Leu Thr Ala
               5
                                            10
    392 Trp Thr Phe Val Thr Ala Asp Asp Ser Arg Asn Gly Met Glu Asn Leu
```

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TAUE: 01/23/2001
                RAW SEQUENCE LISTING
                                                        : HME: 12:19:41
                PARENT APPLICATION: US/09/749,637
                Imput Set : A:\Cpg.pto
                -Priput Set: N:\CRF3\01232001\1749637.raw
                                                         5 ( )
                                    2. 14
coorde and Install off the Can Met offs each Les Mu Asp Ser has his
\epsilon_{2} (2) \epsilon_{3} (2) \epsilon_{4} (2)
40 And His Gin Gid Ard Pro Asp Inn d., asp kis Glu Giu Met Leu Lou
                                        (. (.)
404 din Ard Gir Var Lys Pro Cys Ard rijs did Bls Olm Leu Cys Asp Leu
and the Pro-Str. Ash Cys Cys Arq Sty art for Cls Val Val Den Ser Cos
3.8 2105 St. 1. Not 11
with all a clibellate of
    212 - IYPE: PAI
122 (203) OBMANISM: Comas fortile
         FIATURE:
428 DZIP NAMESKIA E STIL
180 | 2222 | 10 WHL W. (1)..(74)
432 - 2134 - HHER IM ORMATI Wil Xin of repideo I may be din or pyrordian Karles
```

residue 4 may be 1 1 1 on the entire Mirror X and at restinue 20 mm. Decity of Diemorthy: Xia ha at eesseme 24 war poliçi, birlifin, aono-iodo-iyi diliodoriyi or ensalphority of C phosphority 1.9 (10) SE,4 WEL 11 W--> 441 X/a Val Lys Xaa Cys Arg Lys(Xaa)His Gln Leu Cys Asp Leu Ile Phe

1 7 1 1

W--> 444 Glm Asn Cys Cys Arg Gly Xaa Xaa Cys Val Val Leu Ser Cys Thr Missing explanation of "Xan" at position 8. 1.11 147 -2105 SEQ 'D NO: 12 149 <231> LENGTH: 265 45 - S2125 INDEE DNA 133 - 233 OYAWASM: Comus omaria

45" × 220 × FLATUPE 459 <221> NAME/KEY: CDS

1 189

46: < 222 > LOCATION: (1)..(234)×400× SEQUENCE: 12 166 all against and age min ath ath off occuring the titl accided

10° Met Lys Leu Thr Cys Leu Met Tie Val Ala Val Leu Ser Leu Thr Gly 10 470 tgg aca tto ghe ang got gar den tot gga aat gga ttg ggg aat ott 96 471 Trp Thr Pho Val thr Ald Asp Asp Ser Gly Ash Gly Leu Gly Ash Lea

474 itt leg aat ond eat eac qaa alg aag aac eec gaa gec tot aaa tig

1.44 475 Phe Ser Asn Ala His His Glu Met Lys Asn Pro Glu Ala Ser Lys Leu 4.0 3.5 4.5

478 aan aag agg ton git oba obe gag gon not tigt aat tigg oit ana baa 479 Ash Lys Arq Cys Val Pro His Glu Gly Pro Cys Ash Trp Lou Thr Gln

55 60 50 482 aac tgc tgc ant ggt taf aat tgc afc att tit tic tgc cta $^{\prime}$ 234

483 Asn Cys Cys Ser Gly Tyr Asn Cys Ile Ile Phe Phe Cys Leu 70

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

4.8

192

PATENT APPLICATION: US/09/749,637

- PATE: 117.372004 - TIME: 1.:13:42

Imput Set : A:\Cpg.pto

Output Set: N:\CRF3\01232001\1749637.raw

1:33 M:27) O: Carrent Application Number differs. Replaced Current Application No. This Milel of Current Firmy Date differs, Replaced Current Filling Date lite CH:341 kr (46) "n" or "{aa" used, for ShQ HD# > 1::66 M:341 W: (46) "n" or "Kaa" used, for SEQ II+ 3 filter M 341 wi 46, "h" or "Naa" used, for SEQ 104 4 1:195 M 54; W: 546; "n" or "Gaa" used, for SEQ 10: 4 mind it 341 while "a" or " (aa" used) for Sho Has lizze World Vi dee "h" or "Ada" used, for Shy His o mago N 341 at the "h" or "Mag" used, for Sho Him 8 in the Health William """ or "Mar" used, for Sig How in ...144 M KW Wilsolm "a" or "Kaa" used, for SEO ID: ... 22346 World W. (46) "n' or 'Kia" used, for Sty IL# I Libdo M bal Wi (40) "n" or "Kia" used, for SEO 40# 14 Liber: M 344 Ki a46a "h" or "Kaa" used, for SEO 4D# 1" Fig. 8 M 340 M; 46 "n" or "A44" used, for SEQ ID# 10 is so Mosil wis place "n" of "Kia" used for SEQ ID# 29 Filler M 341 Williams "a" or "Ara" used, for SEQ 110 20 1:003 G 341 K: (46: "h" or "Xir" used, for SEQ 10: 13 1991 - M. (4) William "h" or "him" use L. for SEQ 40- 2-1964 M Str Wi (46 "m" or "Map" used, for SEQ ID: 13 tone Most Wooden "a" or "Maa" used, for SEQ 15: 5trived H: Mi Mi Me) "a" or "xia" used, for SEQ Heriz "h" to "Kaa" usod, for Sec Heat." Community with the file 68 Mo H Wi [40] "h" or "Waa" used, for MEQ Hear 28 F:1071 H (11 ... 16) in" or "Kaa" used, for SEQ Hi≥:28 "HITE M MAN W: 460 "n" or "Kaa" used, for SEQ ID#+31 L:1175 H 345 W: [46] "r" or "Maa" used, for SEQ ID# at Lilz17 M (4) F. 16: "E" or "Was" used, for SEQ He (4 L:1280 M 341 W: 300 "n" or "Maa" used, for Sig H#:34 L:1381 M - 11 K. | 12 | "h" or "Naa" used. for SE) ID# 37 Filter a late with Jan "n" or "Kaa" used, for SEP ID# 37 1490 if 511 b: .46; "n" or "Naa" used, for SEO 1D# 30 L:1493 M 541 W. (46) "n" or "Naa" used, for SEO ID::40 L:1600 M. 201 W: (45) "n" or "Naa" used, for SEO ID#:45 1. 1703 M 341 W - 460 "b" or "Haa" used, for ShO ID# 46 1. 1706 M 341 W. 346; "n" or "Raa" used, for SEO ID# 16 1. (307 M -41 W - (46) "n" or "Xda" used, for SED ID#:39 L 1819 5 341 A 346, "n" or "Xar" used, for SEO ID# 49 f. 1917 M 341 W 746) "n" or "Mar" used, for SEQ ID# 52 1. 1920 M ·41 W (46) "n" or "Maa" used, for SEQ ID# 52 I. 1946 M 341 V. (46) "n" or "Xaa" usad, for SFQ ID# 53 (46) "n" or "Yaa" used, for SEO ID#:54 L 1976 H :41 W (46) "n" or "kaa" used, for SEQ ID#:54 L 1979 M (41 W. L:2079 M 341 W: (46) "n" or "Xaa" used, for SEQ 1D# 57 L-2082 M-341 W: (46) "n" or "Xaa" used, for SEQ 1D# 57 L 2181 M:341 W. (46) "n" or "Xaa" used, for SEQ ID# 60 L 2285 M·341 W: (46) "n" or "Xaa" used, for SEQ ID# 63 L:2288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#.63

PATENT APPLICATION: US/09/749,637 PATENT APPLICATION: US/09/749,637 PATENT APPLICATION: US/09/749,637

TAIL: 01/23/2001

Imput Set : A:\Cpg.pto

Output Set: N:\CRF3\01232001\1749637.raw

1:2388	$M:\exists \exists 1]$	W:	(4€)	" fi "	131	"Xàa"	used,	$f \ominus t$	SFQ	Time: 66
1:2391	14:341	W.:	(30)	"1."	t.T	$^{n}Xaa^{n}$	01290001.	$1 \ominus 1^\circ$	SEQ	Item: tit
11:2493	14:341	VV 1	į ih i	" 11 "	eit	"Xãa"	used.	101	SEQ	10#:69
1:2496	14:341	N:	(46)	" !! "	ωr	$^{''}$ Xaa $^{''}$	used.	10°	SLQ	ID#:63

DATE: 01/16/2001

OIPE

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PATENT APPLICATION: US, 09/749,637
                                                              TIME: 11:53:50
                     Imput Set : A:\2314-227.ST25.txt
                     Output Set: N:\CRF3\01162001\1749637.raw
      2 - 116 APPLICANT: University of Wigh Lemearch Foundation
                                                                Does Not Combly
              dequetis, Inc.
                                                             Corrected Diskette Needed
              Olivera, Baldomere M.
              Stantion, G. Edward
              Watkins, March
                                                                    pp 1,2
              Hillyord, David K.
              Metrotesh, J. Michael
                                                                 There en fact.
     10
              Layer, Richard I.
              Jones, Pobert M.
     1.1
              TITLE OF INSTHICTM: C-Superfamely Const win Poptides
     [15] 21 KO 2 [ [LE REPLETED 1 : 23:14:227
C--> 17 <140> CURRENT APPLICATION NUMBER: US, 09/749, 637
C--> 17 <141> CURRENT FILING DATE: 2000-12-28
     17 -1500 PETER APPLICATION NUMBER: US 60/213 112
     IS 195. PRIOR PILING DAIL: 2000-10-27
     20 × 150% PRIOR APPLICATION NUMBER: US60,219,440
     JI - 1512 PRIOR 11:INJ PAIR: 2000-07-20
     23 (150) PRIOS TEPLOTATION NUMBER: US 60/111 203
        151> PRIOR TILING DAIL: 2000-06-26
        150% PFF P COPL CATION NUMBER: US 60/175,754
     27 <151> PRIOR FILING DATE: 1999-12-30
     29 <160. NUMBER OF SEO ID KOS: 409
     31 <170% SOFTWARD: Patentil Version 3.0
FRRORED SEQUENCES
     959 <210> SEQ ID NO 34
     960 <011 LENGIH: 27
     961 :2125 TYFE: PRT
     902 0213 0 ORGANISM: Conus ammiralis
     964 KILES FEATURE:
     96 % < 221 % NAME/KEY: SITE
     966 <PH2: LOCATION: (1)..(27)
     967 KRZER OTHER INFORMATION: Kaa at residue 1 may be Irp or bromo-Trp: Xaa at
residues 7 and 1
     968 223> 8 may be Glu or gamma-carboxy-Glu; Xaa at residue 20 may be fyr
     969 (223) 125-1-1yr, mono-fodo-fyr, di-fodo-fyr, O-sulpho-Tyr or O-phospho-
E--> 970 <223 Tyr
                                   Move
                                                here or place (223) before each
     973 <100> SEQUENCE: 14
E--> 975 Xaa Cys Lys Gla Ser Gly Xaa Met Cys Asn Leu Leu Asp Gla Asn Cys line of the 976 l
W--> 978 Cys Xaa Gly Xaa Cys Ile Val Leu Val Cys Thr
W--> 978 Cys Xaa Gly Xaa Cyx Ile Val Leu Val Cys Thr
                     20
                                 When a lone amno acid is placed
     8367 < 210> SEQ ID NO: 313
     8368 <211> LENGTH: 26
                                 like this and does not have a <223>
     8369 <212> TYPE: PRT
```

file://C:\Crf3\Outhold\VsrI749637.htm picks it up as the first amino in 1/16/01

in front of it, the computer program

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/749,637

DATE: 01/16/2001 - LIME: [11:53:40]

Input Set : A:\2314-227.ST25.txt

Out.put. Set: N:\CRF3\01162001\1749637.raw

are of the ORGANISM: Comus tessulatus

SHATE RIP FEATURES

87-1-8221 - NAME/KEY: SITE

s 34 + 202 Lectairon: (1)...(26) s - 2.23 - 61HFR INCOMBATION: Xad at residues 3 and 7 may be Trp or bromo-Trp:

Xaa at tesidues

a -- '

 κ -% (223)1 and 17 may be Pro or hydroxy-Pro: Xaa at residue t may be ryte

223 jung - 1, r. mono-iode-fyr, Hi-iodo-fyr, O-sulpho-lyr or O-phosphe-

E--> 8378 <223 Tyr) --

move to here or place (223) before each

ensi kaco (digundin 313)

F--> 8383 Asp Cys Xaa Xaa Sin Xaa Xac Phe Cys Gly Leu Gin Arg Gly Cys Cys

6.554 1 W--> 8386 Xda Gly Thr Thr Cys Phe Phe Leu Cys Phe

21.

the explaination

Same error, réfer to p.1.

PATENT APPLICATION: US/09/749,637

DATE: 01/16/2004 TIME: 11:33:41

input Set : A:\2314-227.ST25.txt

Output Set: N:\CRF3\01162001\1749637.raw

```
1:17 H:236 T: Surrent Application Number differs. Replaced Carrent Application No.
Fill Min 1 to Current Filing Date differs, Replaced Current Filing Date
hilbs 9:34. W: (46) h" or "Kha" used, for SEO (D#13
Little H: 4, 8: 746, "n" or "Aaa" used, for SEQ ID# 3
     Him Wi (46: "n" or "Yaa" used, for SEO (D# )
                    "n" or "Maa" used, for SEQ D# 4
Lilas Hisa - wi (40)
biles MistD with two "h" or "tra" used, for SEQ ID: 5
Editor Minds Wiledon "n" on "Yaa" used, for SEQ How.5
while Mista with the "h" or "War" used, for SPQ AD# 8
lista Mist We also "a" or "Mar" used for SEQ TD#. H
lightly Middl Millage """ or "Kii" used, for SEO ID: II
ridus Misdouto ese "m" or "Gar" used for SLQ TDF 13
L-407 M:341 w: +46 "n" or "64:" used, for SEQ IP# 14
                    "n" or "Kar" used, for SEQ UDE.17
D. 1996 Misti W. S. 6
                    "n" or 'Ear' used, for SEO ff# 1'
  The Market With Contra
                    " 11 "
COUNTY OF WE COB
                       or "Baa" is do for SEQ (105 z0)
  col M: 41 m: +16 'n' or "Gar" used, for SEQ aD# 20
  688 M. All wir 46 "h" or "Eas" used, for 3Eg abs 25
I 69" M: 54: W: 3:60 "E" or "Kar" used, for SEO D4 25
  The Hissian consists of "him or "har" used, for SEq 10= 24\,
 71. H: GT W: (Gr. "h" on "Kaa" used, for SEQ (D# 24
   Mr Mr Mr Mr 146 "h" or "Kaa" used, for SEQ +0#.27
                       or "Saa" used, for Sept 10, 27
  Territory Williams
                    " II "
                    ";" or "Gaa" used, tor SEQ (D# 28
 81.2 H: 100 W: 30
L 815 U: 41 V: . . . .
                    n , n
                       or "Eca" used, for SLQ (10 38
1 893 H: 44 W. (46. "h" or "544" used, for SEQ ID# 31
t 896 M-341 Up :162 "a" or "Kaa" used. for SEQ 10# 31
L 970 M:25, Fr No. of Beq. differs, 
L 975 4:34! W: (76 "h" or "Zwa" used, for SEQ ID#:0
L 978 M: 24! W: (16, "h" or "Xaa" used, for SEQ ID# 0
t 10% E fill by the "n" or "Gaa" used, for SEQ TD-37
1.4089 E 241 W: .46) "n" or "Nia" used, for SEQ 11 32
L 1142 M 341 W: [46: "n" or "Ga" used, for SEQ ID#:40
i. 1115 M 541 W: (46) "n" or "Raa" used. for SEO 1D# 40
L 1923 M.341 W. ,48: "n" or "Naa" used, for SEQ ID# 43
Light to All Will (An) "n" or "Kaa" used, for SEC How to
i Hali Mindl Windows "n" or "Xaa" used, for SEQ ID#.45
To 39: to 3! W = 4cm "n" or "Era" used, for SEQ ID# 49
1 1393 N 41 W 4m; "n" or "Xia" used, for SEQ ID#.49
L 1477 H .41 . . .40. "n" or "Xaa" used, for SEC ID#:52
I 1480 M 41 W (16) "n" or "Xaa" used, for SEQ 10#:52
               (46) "n" or "Naa" used, for SEQ flor:53
L.1497 H : 41 W
L-1513 M- 41 W- (46) "n" or "Naa" used, for SEQ ID#.54
                (46) "n" or "Xaa" used, for SEQ ID#:54
L-1521 M -41 W
1, 1598 M [4] W. (46) "n" or "Daa" used, for SEQ ID#:57
L 1601 P 741 W
               (46) "n" or "Xaa" used, for SEQ ID#:57
L 1677 M 541 W. (46) "n" or "Xaa" used, for SEQ ID#:60
L.1758 M 541 W (46) "n" or "Xaa" used, for SEQ ID#:63
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PATENT APPLICATION: US/09/749,637

Award IZIC/2961 Alama Ilioka

Imput Set : A:\2314-227.ST25.txt

(mt.put Sef: N:\CRF3\01162001\1749637.raw

1:.76° M:34: W: (46) "L" or "Xaa" used for SFy Harre?
L:1836 M:34: W: (46) "L" or "Xaa" used for SFy Harre?
L:184! M:34! W: (46) "L" or "Xaa" used for SFy Harre.
L:1920 M:34! W: (46) "L" or "Xaa" used for SFy Harre.
L:1924 M:34! W: (46) "L" or "Xaa" used for SFy Harre.
L:3578 M:252 E: No. of Seq. differs, -listModificipation is dut. Scale.